

PCI

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/937,100A

DATE: 01/29/2003 P.6

TIME: 15:12:54

Input Set : A:\Merk2309.app

Output Set: N:\CRF4\01292003\I937100A.raw

3 <110> APPLICANT: THIERAUCH, KARL-HEINZ GLIENKE, JENS HINZMAN, BERND 5 PILARSKY, CHRISTIAN 8 <120> TITLE OF INVENTION: PROTEIN ISOLATION AND ANALYSIS 10 <130> FILE REFERENCE: MERCK 2309 12 <140> CURRENT APPLICATION NUMBER: 09/937,100A C--> 13 <141> CURRENT FILING DATE: 2002-04-22 15 <150> PRIOR APPLICATION NUMBER: PCT/GB00/01015 16 <151> PRIOR FILING DATE: 2000-03-17 18 <150> PRIOR APPLICATION NUMBER: 9906551.8 GB 19 <151> PRIOR FILING DATE: 1999-03-23 21 <150> PRIOR APPLICATION NUMBER: 9907057.5 GB 22 <151> PRIOR FILING DATE: 1999-03-29 24 <150> PRIOR APPLICATION NUMBER: 9907641.6 GB 25 <151> PRIOR FILING DATE: 1999-04-06 27 <150> PRIOR APPLICATION NUMBER: 9914874.4 GB 28 <151> PRIOR FILING DATE: 1999-06-28 30 <150> PRIOR APPLICATION NUMBER: 9915363.7 GB 31 <151> PRIOR FILING DATE: 1999-07-02 33 <150> PRIOR APPLICATION NUMBER: 9915677.0 GB 34 <151> PRIOR FILING DATE: 1999-07-06 36 <150> PRIOR APPLICATION NUMBER: 9916511.0 GB 37 <151> PRIOR FILING DATE: 1999-07-14 39 <150> PRIOR APPLICATION NUMBER: 9920503.1 GB 40 <151> PRIOR FILING DATE: 1999-08-31 42 <150> PRIOR APPLICATION NUMBER: 9922285.3 GB 43 <151> PRIOR FILING DATE: 1999-09-21 45 <160> NUMBER OF SEQ ID NOS: 69 47 <170> SOFTWARE: PatentIn Ver. 2.1 49 <210> SEQ ID NO: 1 50 <211> LENGTH: 24 51 <212> TYPE: DNA 52 <213> ORGANISM: Artificial Sequence 54 <220> FEATURE: 55 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic oligonucleotide for an 8 amino acid barcode peptide 58 <220> FEATURE: 59 <221> NAME/KEY: CDS 60 <222> LOCATION: (1)..(24) 61 <223> OTHER INFORMATION: 63 <220> FEATURE:

64 <221> NAME/KEY: misc_feature

DATE: 01/29/2003

```
PATENT APPLICATION: US/09/937,100A
                                                               TIME: 15:12:54
                     Input Set : A:\Merk2309.app
                     Output Set: N:\CRF4\01292003\I937100A.raw
     65 <222> LOCATION: (1)..(1)
     66 <223> OTHER INFORMATION: n=a,t,g,c
W--> 68 <220>
     69 <221> NAME/KEY: misc feature
     70 <222> LOCATION: (4)..(4)
     71 <223> OTHER INFORMATION: n=a,t,g,c
     73 <220> FEATURE:
     74 <221> NAME/KEY: misc feature
     75 <222> LOCATION: (7)..(7)
     76 <223> OTHER INFORMATION: n=a,t,g,c
     78 <220> FEATURE:
     79 <221> NAME/KEY: misc feature
     80 <222> LOCATION: (10)..(10)
     81 <223> OTHER INFORMATION: n=a,t,q,c
     83 <220> FEATURE:
     84 <221> NAME/KEY: misc feature
     85 <222> LOCATION: (14)..(14)
     86 <223> OTHER INFORMATION: k=q,t
     88 <220> FEATURE:
     89 <221> NAME/KEY: misc feature
     90 <222> LOCATION: (16)..(16)
     91 <223> OTHER INFORMATION: v=a,g,c
     93 <220> FEATURE:
     94 <221> NAME/KEY: misc_feature
     95 <222> LOCATION: (20)..(20)
     96 <223> OTHER INFORMATION: n=a,g,t,c
     98 <220> FEATURE:
     99 <221> NAME/KEY: misc feature
     100 <222> LOCATION: (21)..(21)
     101 <223> OTHER INFORMATION: v=a,g,c
     103 <220> FEATURE:
     104 <221> NAME/KEY: misc feature
     105 <222> LOCATION: (23)..(23)
     106 <223> OTHER INFORMATION: n=a,t,g,c
     108 <400> SEQUENCE: 1
                                                                                 24
W--> 109 nac ncc ngq ntg tkc vag gnv cnt
W--> 110 Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     111 1
     114 <210> SEQ ID NO: 2
     115 <211> LENGTH: 8
     116 <212> TYPE: PRT
     117 <213> ORGANISM: Artificial Sequence
     119 <220> FEATURE:
     120 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
     121
               barcode peptide
     123 <220> FEATURE:
     124 <221> NAME/KEY: misc_feature
     125 <222> LOCATION: (1)..(1)
     126 <223> OTHER INFORMATION: The 'Xaa' at location 1 stands for Asn, Asp, His, or Tyr.
```

RAW SEQUENCE LISTING

DATE: 01/29/2003

TIME: 15:12:54

Input Set : A:\Merk2309.app Output Set: N:\CRF4\01292003\I937100A.raw 128 <220> FEATURE: 129 <221> NAME/KEY: misc feature 130 <222> LOCATION: (2)..(2) 131 <223> OTHER INFORMATION: The 'Xaa' at location 2 stands for Thr, Ala, Pro, or Ser. 133 <220> FEATURE: 134 <221> NAME/KEY: misc feature 135 <222> LOCATION: (3)..(3) 136 <223> OTHER INFORMATION: The 'Xaa' at location 3 stands for Arg, Gly, or Trp. 138 <220> FEATURE: 139 <221> NAME/KEY: misc feature 140 <222> LOCATION: (4)..(4) 141 <223> OTHER INFORMATION: The 'Xaa' at location 4 stands for Met, Val, or Leu. 143 <220> FEATURE: 144 <221> NAME/KEY: misc feature 145 <222> LOCATION: (5)..(5) 146 <223> OTHER INFORMATION: The 'Xaa' at location 5 stands for Cys, or Phe. 148 <220> FEATURE: 149 <221> NAME/KEY: misc_feature 150 <222> LOCATION: (6)..(6) 151 <223> OTHER INFORMATION: The 'Xaa' at location 6 stands for Lys, Glu, or Gln. 153 <220> FEATURE: 154 <221> NAME/KEY: misc feature 155 <222> LOCATION: (7)..(7) 156 <223> OTHER INFORMATION: The 'Xaa' at location 7 stands for Glu, Asp, Gly, Ala, or Val. 158 <220> FEATURE: 159 <221> NAME/KEY: misc feature 160 <222> LOCATION: (8)..(8) 161 <223> OTHER INFORMATION: The 'Xaa' at location 8 stands for His, Arg, Pro, or Leu. 163 <400> SEQUENCE: 2 W--> 164 Xaa Xaa Xaa Xaa Xaa Xaa Xaa 165 1 168 <210> SEQ ID NO: 3 169 <211> LENGTH: 14 170 <212> TYPE: PRT 171 <213> ORGANISM: Artificial Sequence 173 <220> FEATURE: 174 <223> OTHER INFORMATION: Description of Artificial Sequence: Linker peptide 177 <400> SEQUENCE: 3 178 Glu Gly Lys Ser Ser Gly Ser Gly Ser Glu Ser Lys Val Asp 179 1 182 <210> SEQ ID NO: 4 183 <211> LENGTH: 8 184 <212> TYPE: PRT 185 <213> ORGANISM: Artificial Sequence 187 <220> FEATURE: 188 <223> OTHER INFORMATION: Description of Artificial Sequence: Flag 189 epitope peptide 191 <400> SEQUENCE: 4

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/937,100A

RAW SEQUENCE LISTING DATE: 01/29/2003 PATENT APPLICATION: US/09/937,100A TIME: 15:12:54

Input Set : A:\Merk2309.app

Output Set: N:\CRF4\01292003\1937100A.raw

	Met Asp Tyr Lys Asp Asp Lys	
193		
196	<210> SEQ ID NO: 5	
197	<211> LENGTH: 53	
198	<212> TYPE: DNA	
199	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
202	<223> OTHER INFORMATION: Description of Artificial Sequence: Primer	
203		
	<400> SEQUENCE: 5	
	gcggatccca tatggactac aaagacgatg acgacaaaca ggtgcagctg cag	53
209	<210> SEQ ID NO: 6	
210	<211> LENGTH: 35	
211	<212> TYPE: DNA	
212	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
215	<223> OTHER INFORMATION: Description of Artificial Sequence: Primer	
216	RD3'	
218	<400> SEQUENCE: 6	
219	gcgaattcgt ggtggtggtg gtggtgtgac tctcc	35
222	<210> SEQ ID NO: 7	·
223	<211> LENGTH: 50	
224	<212> TYPE: DNA	
225	<213> ORGANISM: Artificial Sequence	
227	<220> FEATURE:	
228	<223> OTHER INFORMATION: Description of Artificial Sequence: Primer	
229	Foslfor	
231	<400> SEQUENCE: 7	
232	atggaattcc tcgagaccga caccctacag gcggaaaccg accagctgga	50
235	<210> SEQ ID NO: 8	
236	<211> LENGTH: 50	
237	<212> TYPE: DNA	
238	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
241	<223> OTHER INFORMATION: Description of Artificial Sequence: Primer	
242	Fos80rev	
244	<400> SEQUENCE: 8	
245	togogattto ggtttgcago goggattttt ogtottocag otggtoggtt	50
248	<210> SEQ ID NO: 9	
249	<211> LENGTH: 50	
250	<212> TYPE: DNA	
251	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
254	<223> OTHER INFORMATION: Description of Artificial Sequence: Primer	
255		
257	<400> SEQUENCE: 9	
258	aaaccgaaat cgcgaacctg ctgaaagaaa aagaaaagct ggagttcatc	50
	<210> SEQ ID NO: 10	
	<211> LENGTH: 50	

RAW SEQUENCE LISTING DATE: 01/29/2003 PATENT APPLICATION: US/09/937,100A TIME: 15:12:54

Input Set : A:\Merk2309.app

Output Set: N:\CRF4\01292003\I937100A.raw

```
263 <212> TYPE: DNA
264 <213> ORGANISM: Artificial Sequence
266 <220> FEATURE:
267 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
          Fos155rev
270 <400> SEQUENCE: 10
271 ggaagettga atteegeegg aeggtgtgee geeaggatga aeteeagett
                                                                            50
274 <210> SEQ ID NO: 11
275 <211> LENGTH: 18
276 <212> TYPE: DNA
277 <213> ORGANISM: Artificial Sequence
279 <220> FEATURE:
280 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
          Fosl fS
281
283 <400> SEQUENCE: 11
                                                                            18
284 atggaattcc tcgagacc
287 <210> SEQ ID NO: 12
288 <211> LENGTH: 18
289 <212> TYPE: DNA
290 <213> ORGANISM: Artificial Sequence
292 <220> FEATURE:
293 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
          Fos155 rS
294
296 <400> SEQUENCE: 12
                                                                            18
297 ggaagcttga attccgcc
300 <210> SEQ ID NO: 13
301 <211> LENGTH: 28
302 <212> TYPE: DNA
303 <213> ORGANISM: Artificial Sequence
305 <220> FEATURE:
306 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer I
          for 340 VH amplification
309 <400> SEQUENCE: 13
                                                                            28
310 cagctgcagg agtctggggg aggcttag
313 <210> SEQ ID NO: 14
314 <211> LENGTH: 36
315 <212> TYPE: DNA
316 <213> ORGANISM: Artificial Sequence
318 <220> FEATURE:
319 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer II
          for 340 VH amplification
320
322 <400> SEQUENCE: 14
                                                                            36
323 tcaqtaqacq qtqaccqagg ttccttgacc ccagta
326 <210> SEQ ID NO: 15
327 <211> LENGTH: 26
328 <212> TYPE: DNA
329 <213> ORGANISM: Artificial Sequence
331 <220> FEATURE:
```

332 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer I

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/29/2003 PATENT APPLICATION: US/09/937,100A TIME: 15:12:55

Input Set : A:\Merk2309.app

Output Set: N:\CRF4\01292003\I937100A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:1; N Pos. 1,4,7,10,20,23
Seg#:1; Xaa Pos. 1,2,3,4,5,6,7,8
Seq#:2; Xaa Pos. 1,2,3,4,5,6,7,8
Seq#:27; N Pos. 21,24
Seq#:28; N Pos. 21,24
Seq#:29; N Pos. 21,24
Seq#:30; N Pos. 21,24
Seq#:31; N Pos. 21,24
Seq#:32; N Pos. 7,10
Seq#:33; N Pos. 7,10
Seq#:34; N Pos. 7,10
Seq#:35; N Pos. 7,10
Seq#:36; N Pos. 7,10
Seq#:58; N Pos. 31,32,34,35,37,38,40,41,43,44,46,47,49,50
Seq#:58; Xaa Pos. 11,12,13,14,15,16,17
Seg#:59; Xaa Pos. 11,12,13,14,15,16,17
Seq#:60; N Pos. 28,29,31,32,34,35,37,38,40,41,43,44,46,47
Seq#:61; N Pos. 14,15,17,18,20,21,23,24,26,27,29,30,32,33,35,36,38,39,41,42
Seq#:61; Xaa Pos. 5,6,7,8,9,10,11,12,13,14
Seq#:62; Xaa Pos. 5,6,7,8,9,10,11,12,13,14
Seq#:63; N Pos. 29,30,32,33,35,36,38,39,41,42,44,45,47,48,50,51,53,54,56,57
Seq#:64; N Pos. 15,18,19,22,25,28,38,41
Seq#:64; Xaa Pos. 7,8,9,10,11,12,13,14
Seq#:65; Xaa Pos. 7,8,9,10,11,12,13,14
Seq#:66; N Pos. 14,17,27,30,33,36
Seq#:67; N Pos. 15,18,19,22,25,28,38,41,48,51,52,55,58,61,71,74
Seq#:67; Xaa Pos. 7,8,9,10,11,12,13,14,18,19,20,21,22,23,24,25
Seq#:68; Xaa Pos. 7,8,9,10,11,12,13,14,18,19,20,21,22,23,24,25
Seg#:69; N Pos. 14,17,27,30,33,36,47,50,60,63,66,69
```

DATE: 01/29/2003

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/937,100A TIME: 15:12:55

Input Set : A:\Merk2309.app

Output Set: N:\CRF4\01292003\I937100A.raw

```
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:68 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:61
L:109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:24 L:164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:502 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:525 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:548 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:571 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:617 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:640 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:686 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:1017 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:58, Line#:1010
L:1017 M:236 W: Mandatory reactive missing, (223) Blank for SEQ ID#:5807E.

L:1083 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:0

L:1084 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:48

L:1085 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:48

L:1088 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:77
L:1151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0
L:1154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:16
L:1239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:0
L:1263 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:61,Line#:1256
L:1359 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0
L:1360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:49
L:1448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:0
L:1566 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
L:1589 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:64,Line#:1582
L:1645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0
L:1646 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:48
L:1703 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0
L:1762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:0
L:1784 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:67,Line#:1777
L:1890 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:0
L:1891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:48
L:1894 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:48
L:1895 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:87
L:1989 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:0
L:1992 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:16
L:2098 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:0
L:2099 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:60
```